**SU Marketplace and Collaborative Platform**



**IST 659: Database Administration Concepts**

**and Database Management**

Query Crew

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**Project Introduction**

The "SU Marketplace and Collaborative Platform" project is an innovative initiative to foster a safe, efficient, and University community-based environment for second-hand trading within the Syracuse University community. This project was developed in response to the unique needs and dynamics of the university setting, where many members are looking to buy or sell quality, affordable goods.

This project was selected due to the unique characteristics of the University, where the frequently moving environment of the student and faculty population creates a continuous cycle of demand and supply for second-hand goods. The existing platforms are either too broad in scope or lacking in security measures. SU Marketplace platform will address these gaps by providing a tailored solution that aligns with the community's values and needs.

In order to ensure the success of this project, maximizing user engagement is crucial. Consequently, our team plans to enhance the project by integrating a collaborative platform. This strategic addition is designed to facilitate the exchange of ideas and information among students, thereby promoting the university's community spirit and social engagement. Additionally, this feature is expected to attract new users, particularly those who are currently utilizing alternative second-hand trading platforms, by offering a more interactive and community-oriented experience.

**Project Objectives**

The primary objectives of the “university Marketplace” are:

1. **Efficient Second-hand Trading**: Streamline the process of buying and selling second-hand goods among university members. Enhancing the efficiency of these transactions.
2. **Safe and Reliable Platform**: offer a secure and reliable platform for trading, ensuring the safety and trust of its users.
3. **Community Engagement**: Enhance the vibrancy of the university community by providing a platform that not only facilitates trading but also encourages social interactions and community.

Data Requirements

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After discussion of the project and analysis phase, our team has identified entities, attributes, and relationships.

Conceptual Model

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Logical Model

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1. users

- Primary Key:user\_id

- Unique Key: user\_suid, user\_email

2. orders

- Primary Key: order\_id

- Foreign Key: order\_user\_id

3. reviews

- Primary Key: review\_id

- Foreign Key: review\_for\_user\_id, review\_by\_user\_id

4. products

- Primary Key: product\_id

- Foreign Key: product\_category\_id, product\_user\_id

5. categories

- Primary Key: category\_id

- Unique Key: category\_name

SQL Up/Down script

Up/Down script for dropping foreign keys and tables

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Up/Down script for creating tables

A screenshot of a computer program

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A screenshot of a computer program

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A computer code with text

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Up/Down script for inserting data

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A close up of a grid

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A group of blue and white lines

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Verifying tables

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Stored procedure for buying a product

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A screenshot of a computer program

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The stored procedure first checks if the user has enough balance to buy a product or not, If not, the transaction will be rollbacked and the system will display “Insufficient Balance”. If yes, the product price will be deducted from buyer’s balance and will be added to seller’s balance, a “Purchase successful” message will be displayed and the product will be removed from the products table (meaning the product has been sold and delisted). If any error occurs within the stored procedure, then the transaction will be rollbacked and an error message will be displayed.

View for the top 5 highest priced items

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This view shows the top 5 highest selling items.

View for user’s order history

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This view provides a user’s order history both buying and selling.

Working Application Screens

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<Login Screen> <Login Fail Screen >

A screenshot of a cartoon character

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<Main Menu Screen> <Product List Screen>

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<Categorical Sorted Screen> <Product Detail Screen>

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<Add Product Screen> <Contact User Screen>

A screenshot of a cartoon

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<User History Screen> <User Sales History Screen>

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<Review User Screen>

Power apps demonstration

<https://video.syr.edu/media/t/1_wehpgc8i>

Team Log

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| --- | --- | --- |
| **Tasks** | **Members** | **Date** |
| Team Meeting #1  - Selecting a topic for the team project | Anish Kumar, Eric Lee | Oct 12 2023 |
| Team Meeting #2  - Confirming a topic for the project and assigning roles and tasks for the team project | Anish Kumar, Eric Lee, Komal Sharma | Oct 18 2023 |
| Team Project Proposal Document | Komal Sharma | Oct 20 2023 |
| Team Meeting #3  - Canceled | Komal Sharma(sick) | Oct 26 2023 |
| Team Meeting #4  - Canceled | Anish Kumar(unable to contact)  Komal Sharma(unable to contact) | Oct 30 2023 |
| Team Meeting #5  - Identifying data entities, attributes, and relationships | Anish Kumar, Eric Lee | Nov 03 2023 |
| Data Requirements | Anish Kumar | Nov 12 2023 |
| Conceptual Data Model | Anish Kumar | Nov 13 2023 |
| Team Meeting #6  - Sharing ideas based on the conceptual model | Anish Kumar, Eric Lee | Nov 14 2023 |
| Logical Data Model | Eric Lee | Nov 16 2023 |
| SQL UP/DOWN Scripts | Eric Lee | Nov 18 2023 |
| Generate and insert data | Eric Lee | Nov 19 2023 |
| Team Meeting #7  -Checking data and discussing data logic | Anish Kumar, Eric Lee | Nov 20 2023 |
| Data logic | Anish Kumar | Nov 23 2023 |
| Power apps | Eric Lee | Dec 02 2023 |
| Team Meeting #8  - Demonstrating PowerApps and discussing the layout of a presentation | Anish Kumar, Eric Lee, Komal Sharma | Dec 02 2023 |
| Project PowerPoint | Komal Sharma | Dec 02 2023 |
| Team Meeting #9  - Final presentation practice | Eric Lee, Komal Shama | Dec 04 2023 |
| Project Presentation | Eric Lee, Komal Sharma | Dec 04 2023 |
| Project Documentation | Eric Lee | Dec 10 2023 |